



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/928,827	08/13/2001	Edwin J. Oakey	1543-000002	8746

27572            7590            12/31/2002

HARNESS, DICKEY & PIERCE, P.L.C.  
P.O. BOX 828  
BLOOMFIELD HILLS, MI 48303

EXAMINER

NGUYEN, THUKHANH T

ART UNIT	PAPER NUMBER
1722	

DATE MAILED: 12/31/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	09/928,827	OKEY ET AL.
<b>Examiner</b>	<b>Art Unit</b>	
Thu Khanh T. Nguyen	1722	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 22 November 2002.

2a) This action is **FINAL**.                  2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-38 is/are pending in the application.

4a) Of the above claim(s) 1-25 and 36-38 is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 26-35 is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

#### Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some \* c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

#### Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .	6) <input type="checkbox"/> Other: _____

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election without traverse of group II - claims 26-35 in Paper No. 6 is acknowledged.

### ***Specification***

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: Method for forming high-impact, transparent, distortion-free polymeric materials.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 26-27, 29 and 32- 35 are rejected under 35 U.S.C. 102(b) as being anticipated by Weisner et al (4,352,776).

Weisner et al teach an apparatus and method for fabricating polycarbonate plastic sheet into skylights. The method comprises the steps of: 1- trimming the sheet to a predetermined size and shape (col. 7, lines 58-59), 2 - preheating clamp frame and the flange of the sheet to 250F (col. 8, lines 11-14), 3 - heating the sheet to 300F (col. 8, lines 19-23), 4 - retaining the heated sheet between a first and second mold halves along the peripheral edge (col. 8, lines 39-43), 5 -

drawing a vacuum on one side of the sheet to form dome area (col. 8, line 43-45), 6 - detecting the draw depth of the sheet in between the mold (col. 8, lines 47-51) for turning off the vacuum and start the cooling step, 7 - turning off the vacuum (col. 8, lines 50-52) by any means such as a photo cell, a micro-switch, 8 - cooling the sheet from 300F to below the plastic point of the sheet (col. 9, lines 4-8); 9 - separating the mold and removing the formed article (col. 9, lines 20-22).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Weisner et al (4,352,776) in view of Bangerter et al (4,603,329).

Weisner et al disclose a method for forming skylights as described above, in which the vacuum is turned off by controlling the height of the dorm, but fails to disclose that the step of detecting the draw depth using a laser and sensor.

Bangerter et al disclose a device and method for sensing the present of the formed article comprising a sensor and a laser (col. 3, lines 28-30).

It would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to modify Weisner et al by providing a laser and sensor as taught by Bangerter et al, because the laser and the sensor would accurately determined the position of the forming article.

7. Claims 29-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weisner et al ('776) as applied to claims 26-27 and 32-35 above, and further in view of Christensen et al (6,367,361).

Weisner et al disclose a method of forming a plastic sheet into skylights, including the step of trimming the sheet to an appropriate size and shape before forming, but fail to disclose that the trimming was done by using a series of blades disposed about a perimeter of the mold half.

Christensen et al disclose a method and an apparatus for trimming thermoformed films, comprising the step of trimming the formed films by using a plurality of movable blades (38) for trimming a three-dimensional film-preform (col. 4, lines 15-25).

It would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to modify Weisner et al by providing a plurality of blades around the peripheral of the forming mold as taught by Christensen et al, because the plurality of blades would facilitate the trimming of the sheet at different locations and dimensions.

### ***Conclusion***

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thu Khanh T. Nguyen whose telephone number is 703-305-7167. The examiner can normally be reached on Monday-Thursday and on alternate Friday, 6:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jan H. Silbaugh can be reached on 703-308-3829. The fax phone numbers for the

Art Unit: 1722

organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

TN  
December 20, 2002

*JAN H. SILBAUGH*  
JAN H. SILBAUGH  
SUPERVISORY PATENT EXAMINER  
ART UNIT 1722  
12/30/02